



**STATE OF RHODE ISLAND
DEPARTMENT OF HEALTH
DIVISION OF EMS**

**Curricula & Standards
For Rhode Island
EMT Training Programs**

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PART I

GENERAL INFORMATION

INTRODUCTION

Well-trained prehospital care providers are crucial to the success of Rhode Island's Emergency Medical Services (EMS) system. Since Rhode Island EMTs receive their training through courses conducted by instructor-coordinators licensed by the Department of Health's Division of EMS (RIDOH), it is imperative that our instructors are not only well versed in the core content areas of EMS, but are also capable of delivering high-caliber training. Ultimately, it is our instructor-coordinators who determine the success of our training programs and the competence of our EMS providers.

This document serves a dual purpose: (1) it is a resource for newly-licensed instructor-coordinators, offering tools and guidance for the successful development and conduct of their training programs; and (2) it is a reference tool, containing specific RIDOH standards for conducting the various types of EMS training programs. As additions, deletions, or changes are made to the curricula and standards, instructor-coordinators will receive updated pages for inclusion with their original documents.

OVERVIEW OF COURSE APPLICATION PROCESS

Prior to conducting or administering a RIDOH-approved training program, the instructor-coordinator must submit a completed *EMT Training Program Application* to RIDOH. **This application must be received at least 30 days prior to the inception of the course.** All questions on the application must be answered in detail or the application will be returned to the instructor-coordinator. An application must be submitted for each program being conducted. For example, if an Orotacheal/Endotracheal Intubation course is being taught simultaneously with an EMT-Cardiac program, two separate applications are required.

Upon receipt of a course application, the content will be reviewed by both the EMS Training Coordinator and a representative from the Educational Standards Committee of the Ambulance Service Advisory Board. Upon approval, course approval number will be assigned and a letter of approval will be mailed to the instructor-coordinator. The training program being offered must be consistent with the approved application. **Under no circumstances should any training program proceed without a course approval number and a letter of approval.** Once the course has been approved, it is the responsibility of the instructor-coordinator to communicate to RIDOH, in writing, any changes or adjustments specific to the information contained in the application form, including the postponement or cancellation of the course. **A course approval number must be included on all correspondence that is sent to RIDOH.**

COMPLETING THE APPLICATION FORM

Each question on the *EMT Training Program Application* must be answered thoroughly. An incomplete application will be returned to the instructor-coordinator for amendment. Some frequently incomplete items include (a) the Rhode Island medical license number and telephone number of the course physician medical director; (b) a detailed list of the equipment and training resources that will be available during the course; and (c) the failure to have the application signed by a notary public. A signature by a notary public is not necessary if the application is delivered to RIDOH by the instructor-coordinator who is applying for the course. Although a copy of an application can be faxed

to the EMS office to initiate the application process, the original course application must be received before a course approval number will be assigned and an approval letter mailed.

GENERAL COURSE REQUIREMENTS

Although a prospective student must be at least 18 years of age in order to apply for state licensure, an individual under age 18 is allowed to enroll in an EMT training program. His/her training, however, must have been completed within five years from the date of his/her license application. Any student under the age of 18 who wishes to enroll in a class should be asked to provide written parental consent, indicating that the parent or guardian is aware of the content and requirements of the EMT course.

An applicant for the EMT training program should be able to read and write on the eleventh-grade level, as the course material and licensure examination require a significant level of reading comprehension and critical thinking skills. All approved training programs must observe recognized professional standards in course content and operation, including adherence to the *Rhode Island Prehospital Care Protocols and Standing Orders* and the *Practical Skill Objective Sheets*.

Each RIDOH-approved training program must have a course physician medical director who is a Rhode Island licensed physician experienced in emergency medical care. The medical director is responsible for the medical content of the training program.

An instructor-coordinator is only able to conduct/teach courses at or below his/her level of EMT licensure. As an example, an instructor-coordinator who is licensed as an EMT-Basic is not able to conduct/teach a combined EMT-Basic/Cardiac Refresher program.

DOCUMENTING COURSE COMPLETION

Within two weeks of course conclusion, the instructor-coordinator must submit to RIDOH a course roster listing the names of those students who successfully completed the training program as well as those students who are regarded as "incomplete" or have failed. This roster must include the course approval number and be signed by the course instructor-coordinator of record.

"Incomplete" should have a specific time period established by the instructor-coordinator, not to exceed twelve (12) months, with a specific plan in place that the student needs to complete to become successful in the program. If the student does not meet the time period/course requirement(s), the instructor-coordinator must notify RIDOH of the change in the student's status from "incomplete" to "fail". Conversely, the instructor-coordinator must notify RIDOH of the change in the student's status from "incomplete" to "pass".

COURSE COMPLETION CERTIFICATES

Upon demonstration of competency as measured by formal end-of-course written and practical examinations administered by the instructor-coordinator, a **student shall receive a Certificate of Course Completion**, enabling the student to provide written documentation of his/her training (as required by RIDOH for EMT licensure). In addition to the student's name, license number (if

applicable), and licensure level, the certificate must include the following information: the name of the sponsoring agency; the course completion date; a statement that the individual has successfully completed an EMT training program as approved by RIDOH and in accordance with the U.S. Department of Transportation curriculum (for EMT-B and EMT-P programs); and the signature and training number of the instructor-coordinator of record. **The RIDOH course approval number must appear on the certificate.**

AMERICANS WITH DISABILITIES ACT

An instructor shall not discuss or screen potential students about any disability. If competency tests are a requirement for acceptance into a training program, then the tests must be administered to all potential students. Students who are unable to perform all of the required EMT skills outlined in the *Functional Job Description* are able to audit programs and receive certificates of attendance. No person can be excluded from a course on the basis of a disability.

At the onset of an EMT-Basic or EMT-Paramedic course, each student must be provided with a copy of the National Registry of Emergency Medical Technicians' *Examination Accommodations Disability Policy*, available on the National Registry's web site at http://www.nremt.org/about/policy_accommodations.asp. This policy informs the student that special accommodations can be provided for taking the NREMT written licensure examination and provides instructions for requesting such accommodations from the NREMT. Each student must also be provided with a copy of RIDOH's *Certification of Eligibility* form. Additional copies of these forms are available from RIDOH. The *Certification of Eligibility* requires the student to attest that he/she has read and understood the functional job description for the level of licensure he/she is seeking and that he is capable of performing that job. The instructor-coordinator is asked to forward the *Certification of Eligibility* form to RIDOH as soon as the student completes it.

At the onset of an EMT-Cardiac course, each student must be provided with a copy of RIDOH's *Disability Policy* and a *Certification of Eligibility* form. Additional copies of these forms are available from RIDOH. The *Disability Policy* informs the student that special accommodations can be provided for taking the state written licensure examination. The *Certification of Eligibility* requires the student to attest that he/she has read and understood the functional job description for the level of licensure he/she is seeking and that he/she is capable of performing that job. It also serves as the student's official request for an accommodation at the state exam. Arranging a special accommodation for a student takes considerable time, therefore, the instructor-coordinator is asked to forward the *Certification of Eligibility* form to RIDOH as soon as the student completes it. Any student making such a request must submit documented evidence of a learning disability. Accommodations are limited to: (a) extended time to take the test; (b) a distraction-free space in which to take the test; and (c) a variation of the test schedule.

ATTENDANCE POLICY

Attendance is mandatory for all classes except as follows:

- A student will be allowed no more than three (3) absences from an EMT-Basic, EMT-Cardiac, or EMT-Paramedic training program.
- For a Refresher program, student will be allowed absence from no more than 10% of the total course hours, not including examinations.

Any student exceeding these maximums will be allowed to complete their training program but will not be authorized to sit for the state written examination or renew their EMT license (as applicable.) A student will be held responsible for any material presented during his/her absence.

Course sign-in sheets are an effective means of documenting student attendance, and the instructor-coordinator is encouraged to use them. Without this documentation, it would be difficult to prove whether or not a student attended class sessions. This information would be required should RIDOH audit a course.

COURSE DURATION

Every EMT training program shall include the minimum number of hours as defined in the individual course guidelines. However, the instructor-coordinator may provide additional training as he/she deems necessary and appropriate.

Course content, including both didactic and practical skills components, may not exceed six (6) hours per day unless otherwise specified in the RIDOH-approved curriculum (for example, the ACLS course included in the EMT-Cardiac curriculum runs up to eight hours per day.)

ATTIRE

Students and instructor-coordinators must exhibit good personal hygiene and wear clothing that is appropriate for the material being presented or covered. Instructors are responsible for informing students when specific clothing is required (i.e., extrication drills or clinical time).

BEHAVIOR

The instructor-coordinator sets the tone for a training program by maintaining professional, responsible, and accountable conduct related to his teaching role. Accordingly, he/she should clarify the standards for the conduct of his class (i.e., develop written guidelines for acceptable/unacceptable classroom behavior) and should deal responsibly when a student violates those standards (distribute to the class an outline of "progressive" disciplinary measures in keeping with the students' right to due process). Any incident involving unacceptable behavior must be addressed by the instructor-coordinator and documented in the student's record.

CLASS SIZE

In determining class size, the instructor-coordinator must consider that EMT courses encompass instructor lectures, demonstrations, and practical skills stations. In order to achieve maximum student participation and skill competency, class size should be consistent with the type of training program being conducted, the number of faculty and faculty resources, and the amount

of available equipment. The learning environment and the size of a class must afford the opportunity for each student to ask questions of an instructor and receive answers or assistance from an instructor. **All skills stations must be conducted using a maximum student/instructor ratio of 5:1.**

CLASSROOM FACILITIES

Training facilities should be safe, comfortable, and free of distractions that might adversely affect a student's ability to concentrate. Classrooms must meet local fire and life safety codes and be free of any known structural problems. Rooms should be of sufficient size, have adequate lighting, temperature and ventilation and be equipped with sufficient tables, chairs, and electrical outlets. The instructor-coordinator must assure that students have access to rest room facilities.

COPYRIGHT INFRINGEMENT

Copyright laws protect the original works of authors. It is illegal for anyone to violate the rights provided by the *Copyright Act* to the owner of a copyright. Instructors, therefore, cannot duplicate written materials without permission from the owner of the copyright. *The Fair Use Act*, however, is based upon the premise that so long as you use a portion of a work incorporated into another work for educational use, it is permissible to use it without obtaining the explicit permission of the author/owner. The "public domain" is anything that is exempt from copyright laws either because of the age of the document or because the information is considered to be known by most individuals.

COURSE EVALUATION BY STUDENTS

At the end of a course, each student shall be afforded the opportunity to provide the instructor-coordinator with a written evaluation of the training program. This feedback is a valuable tool in the instructor-coordinator's assessment of the quality and effectiveness of his/her course. The instructor-coordinator should share these student responses with the entire course faculty. The instructor-coordinator has the option of either designing his/her own evaluation form or using RIDOH's *EMT Training Program Evaluation Form*. To encourage candor, the instructor-coordinator should allow students the option of returning the evaluation anonymously.

COURSE RECORDS

The instructor-coordinator is responsible for keeping accurate and adequate records of course management and student performance. Such records shall include but are not limited to the following:

Course records

- Course overview/syllabus
- Course calendar
- Master attendance records
- Program staff roster (including a record of who taught each session)
- Copies of lesson plans, handouts, exams
- List of equipment/resources used
- Clinical assignment schedule
- Lesson make-up
- Final course roster (passes, fails, incompletes)
- Completed course evaluation forms (by students)

Student records

- Application
- Attendance record
- Test scores
- Skill competency evaluation checklists

NOTE: All records should be maintained for a minimum of five (5) years.

RIDOH may perform an audit of course records at any point within this time period.

COURSE SYLLABUS AND RELATED INFORMATION

Every student enrolled in a RIDOH-approved program must be provided with a course overview or syllabus. **This document must include written confirmation of the course approval number; accurate information on class attendance; grading policies and performance expectations; and an outline of the topics of instruction.** The student should be informed about acceptable rules of conduct including appearance, behavior, and academic honesty. As the syllabus is often considered a legal document, the instructor-coordinator should have each student sign two copies of the document. The student should retain one copy, and the other should be filed with the course records.

CRIMINAL HISTORY

At the beginning of his EMS training, a student is given a copy of RIDOH's *EMT-Licensure Criminal Convictions Guidelines*. The instructor-coordinator is responsible for distributing this form to students at the start of any EMT-Basic, Cardiac, Paramedic, or refresher program. The form details the circumstances and process involved in licensing an individual who has committed a violation of Federal, state, or local law. A positive criminal history does not prevent an individual from participating in a training program. However, it may impede his ability to become licensed by the State of Rhode Island.

EQUIPMENT

Equipment needs depend on class enrollment. Prior to the start of any training program, the instructor-coordinator is responsible for determining what type and how much equipment will be needed for the course and for making the necessary arrangements to obtain it. **The amount of course equipment must be consistent with RIDOH's criterion for practical skills labs, which is a student/instructor ratio of 5:1.** Equipment must be complete, with all parts and be maintained in operable condition. A listing of equipment is part of the *EMT Training Program Application Form*.

EXAMINATIONS**Course Written Examinations**

The instructor-coordinator is responsible for designing and developing various quizzes, verbal reviews, handouts and other lesson appropriate materials for students. All examinations and quizzes must be taken. The minimum passing grade for course written examinations is 70%.

Course Practical Examinations

Prior to licensure/relicensure, students are required to successfully complete the course-appropriate practical skills stations. During practical skills examinations, all instructions, questions, and responses will be directly between the examiner and the student. The use of interpreters or others who might assist in communicating is not allowed. Students must demonstrate mastery of all skills in each testing station.

State Practical Examinations

The state EMS office no longer administers practical examinations for Rhode Island EMT licensure. The RIDOH-approved course practical examination shall be the practical examination offered in conjunction with an approved EMT training course. The instructor-coordinator should refer to the specific course guidelines provided herein.

FACULTY

Although an instructor-coordinator may choose to invite outside faculty to teach portions of an approved training program, it is the instructor-coordinator who is ultimately responsible for the conduct of all lessons, including demonstrations of practical skills. **The instructor-coordinator is expected to be present for the majority of scheduled class sessions. The instructor-coordinator of record is the students' primary point of contact for matters related to their training program.**

Instructor-coordinators must assure that the material being presented by others is appropriate for the level of the course being taught and that it is consistent with the content of the DOT *National Standard Curriculum*/RIDOH-approved curriculum (as applicable) as well as the *Rhode Island Prehospital Care Protocols and Standing Orders*. The credentials of outside faculty should be appropriate for the type of training they are providing and must be documented in the training program files (CV, resume, licensure, etc.) Faculty must have an educational background equal to the level at which they are teaching. Licensure as a Rhode Island EMT-B, C, or P is preferred. All instructors must be familiar with prehospital care skills and have experience teaching basic/advanced life support care concepts and skills to prehospital care providers.

FUNCTIONAL JOB DESCRIPTION

At the beginning of any EMT training program (Basic, Cardiac, or Paramedic) the instructor-coordinator is required to distribute to each student a copy of the *EMT Functional Job Description*. Provided by RIDOH, this form contains information describing the tasks that the EMT may perform either alone or as a member of a team. The *Certificate of Eligibility* requires the student to attest that he/she has read and understood the functional job description for the level of licensure he/she is seeking and that he/she is capable of performing that job.

LEGAL ISSUES

The teaching arena is not immune to potential litigation issues. As such, instructor-coordinators must be familiar with laws that pertain to the practice of teaching. The “standard of instruction” is similar in concept to the “standard of care” in that it represents the actions of a “reasonable and prudent” individual who possesses similar training and experience. Areas of potential liability for instructors include the following:

- Discrimination
- Harassment
- Sexual harassment
- Patient injury
- Student injury
- Violations of the *Americans with Disabilities Act*

During their EMS training, students are taught skills that could potentially harm a patient if not performed properly. If a lawsuit ensues as a result of an EMT's negligence or malpractice in the field, it is not inconceivable that an attorney might try to prove that the EMT acted as he was taught, implicating the instructor-coordinator. As a measure of protection, instructor-coordinators should maintain accurate documentation of faculty credentials as well as class schedules that list which instructors taught what specific classes.

The knowledge and skills that instructors impart to their students must be consistent with the DOT *National Standard Curriculum* (if applicable), the RIDOH-approved curriculum, and the *Rhode Island Prehospital Care Protocols and Standing Orders*.

Among several federal laws that impact how instructor-coordinators conduct their training programs is the “Buckley amendment,” part of a federal law that was implemented in 1974 to protect the rights and privacy of student records. In brief, the amendment affords students the right to access their educational records, protects the release of their “personally identifiable” information to third parties without their permission, and requires a due process approach to be used in the event of a disciplinary problem or any violation of the act. Simply put, instructor-coordinators should not publicly discuss students' scores, discuss their results with third-party instructors, post or read aloud test scores, or suspend students from training programs without reasonable due process.

LESSON PLANS

In formulating their course outlines and lesson plans, instructor-coordinators are to refer to those contained in the DOT *National Standard Curricula* (as appropriate) or RIDOH-approved curriculum. Lessons must be augmented to reflect the scope of practice specific to the Rhode Island licensed EMT and in accordance with the *State of Rhode Island Prehospital Care Protocols and Standing Orders*. Lesson plans developed by individual course faculty must be approved by the instructor-coordinator prior to presentation. All lesson plans must be retained by the instructor-coordinator with the course records and be available for review by RIDOH upon request or course audit. The lesson plan for each unit or module will contain the following information:

- Title and Page Objectives
 - Title of the lesson
 - Total lesson time
 - Cognitive, psychomotor and affective objectives
- Requirements
 - Facilities required
 - Number of faculty
 - Equipment needed
 - Materials, audio-visual aids
- Instructor Tasks
 - Tasks instructor should perform to prepare for teaching the lesson
- Lesson Outline
 - Detailed outline and instructor notes of the content of the lesson
 - Suggested instructional strategy
 - Time estimates

REMEDIATION

It is recommended that an instructor-coordinator have a remediation policy and plan in place for his/her training programs. The policy and plan shall address the measures that will be taken by the instructor-coordinator to evaluate and provide prescriptive educational resources to those students not exhibiting required competencies at designated steps over the course. Remediation policies should identify the following:

- How students will be evaluated throughout the course (including both didactic and practical components);
- When the students will receive these evaluations;
- Criteria used to determine the mastery of a required competency;
- Available resources/support for students requiring remediation;
- The number of times students may re-test in order to demonstrate competency;
- Options for students who fail to demonstrate competencies within the designated time,

All remediation efforts should be documented by the instructor-coordinator, signed by the students, and maintained with the course records.

TEXTBOOKS

All EMS training programs have approved textbook lists, which can be found in the individual course guidelines. The course physician medical director or instructor-coordinator may submit an alternative book for approval by RIDOH. Approval of a new text requires submission of the proposed text to the EMS Training Coordinator at least 90 days prior to the start of the training program.

PROGRAM COST

The cost of providing EMS education at the discretion of the instructor-coordinator. RIDOH does not exercise any jurisdiction over how much a student pays for his/her training or how much an instructor receives for his/her services. In determining what to charge for a course, the instructor-coordinator may want to consider the following factors: the cost of providing an appropriate learning environment for the course; the purchase of educational aids; faculty reimbursement; administrative costs; equipment costs (new purchase/parts replacement); printing and reproduction costs; and liability and malpractice insurance. In order to ensure compliance with any applicable business regulations, the instructor-coordinator should enlist direction from his/her attorney and/or accountant.

**UPDATES FOR
EOA AND MAST**

A prerequisite for some out-of-state applicants for Rhode Island EMT licensure is to acquire training and be tested in the use of the esophageal obturator airway (EOA) and the pneumatic anti-shock garment (MAST trousers). Ideally, such an applicant would receive this training from a licensed instructor-coordinator. The instructor is responsible for providing the candidate with basic information about the equipment as well its use in regards to the RI protocols.

At the conclusion of the training, the licensure candidate must be administered a practical examination for both skills, utilizing the *EOA and MAST Update Examination Sheets*. The instructor must forward the original skills sheets to RIDOH and give a copy of each sheet to the candidate for his/her personal records. In the event of an audit, the licensee would have documentation of the update. Additionally, the licensee should receive a course completion certificate for the EOA/MAST Update.

**UPDATE FOR MAJOR
INCIDENT PROTOCOL**

A prerequisite for all out-of-state applicants for Rhode Island EMT licensure is to acquire training and be tested in the RI *Major Incident* protocol and use of related PPE equipment. The instructor for this update must have completed the *RIDOH/RIEMA Major Incident Train-the-Trainer* program. The instructor is responsible for providing the candidate with basic *Major Incident* protocol training as well as practical instruction in donning/doffing PPE and administration of medications covered by the protocol (as appropriate to the applicant's level of licensure). This training may be provided in conjunction with a full EMT course/refreshers or as a stand-alone training.

At the conclusion of this training, the candidate must be provided with a certificate of course completion, a copy of which should be submitted to RIDOH by the candidate as part of the license application process.

PART II
EMT COURSES

GUIDELINES FOR CONDUCTING AN EMT-BASIC TRAINING PROGRAM

APPROVED TEXTBOOKS

Emergency Care (Tenth Edition). Limmer, D., O'Keefe, M., Dickenson, E. Brady/Prentice Hall, 2005.

Emergency Care and Transportation of the Sick and Injured (Ninth Edition). Pollack, A. American Academy of Orthopaedic Surgeons (AAOS), 2005.

EMT Prehospital Care (Third Edition, Revised). Henry, M., Stapleton, E. Mosby Jems, 2007.

Prehospital Emergency Care (Eighth Edition). Mistovich, J., Hafen, B., Karren, K. Brady/Prentice Hall, 2008.

Emergency Care in the Streets (Sixth Edition). Caroline, N. American Academy of Orthopaedic Surgeons (AAOS), 2008.

Emergency Medical Technician Making the Difference. Chapleau, W., Pons, P. Mosby Jems, 2007.

Appropriate workbooks to accompany approved texts.

All textbooks must incorporate the 2005 American Heart Association *Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care*.

BEFORE THE COURSE BEGINS

Prior to the start of an EMT-Basic training program, the instructor-coordinator must conduct a faculty meeting to ensure that course conduct, instruction and examinations are as prescribed by the *1994 DOT National Standard Curriculum* and meet the standards set forth by RIDOH and the National Registry of Emergency Medical Technicians (NREMT). Documentation of this meeting must be maintained by the instructor-coordinator in the course file.

AT THE BEGINNING OF THE COURSE

The following materials will be distributed to students prior to or on the first day of class:

- A course overview, containing information such as course regulations, attendance policies, grading, performance expectations, and the RIDOH course approval number;
- Contact information (phone and email) for the licensed instructor-coordinator of record;
- Approved EMT-Basic textbook and workbook, if applicable;
- Current *Rhode Island Prehospital Care Protocols and Standing Orders*;
- *Practical Skills Objective Sheets* as provided by RIDOH;
- *Practical Skills Laboratory Performance Sheet* as provided by RIDOH;

- *EMT-Basic Patient Observation Forms* (5);
- *Functional Job Description for an EMT*;
- National Registry of Emergency Medical Technicians' *Examination Accommodations Disability Policy* (available from the NREMT web site)
- *Certification of Eligibility Form* (return to RIDOH as soon as possible);
- *Criminal Conviction Guidelines* as provided by RIDOH.

COURSE EXAMINATIONS

Prior to the final course examination for the EMT-Basic training program, students must have successfully completed all didactic, clinical performance, and administrative requirements as required by the EMT-Basic training program. These include, but are not limited to:

1. Demonstrated competency in the EMT-Basic practical skills as verified by the *Practical Skills Laboratory Performance Sheets*;
2. Completion of five (5) *EMT-Basic Patient Observation Assessments* completed during observation time in a **hospital emergency department** as approved by the instructor-coordinator.

Note: These forms should be retained by the instructor-coordinator with the course records. All records are subject to review by RIDOH upon request.

The course final examination consists of two parts:

1. Course written examination—Passing grade is 70% or higher.
2. Course practical examination—Must be conducted specific to the standards established in the *EMT-Basic Psychomotor Skills Objective Sheets* and must include all of the following practical skill stations:
 - Airway management
 - Kendrick Extrication Device (KED)
 - Long board
 - Pneumatic anti-shock garment (MAST)
 - Patient assessment
 - Traction splinting

To ensure standardization in the conduct of course-ending practical examinations, students shall have the opportunity to retest up to a maximum of two (2) practical skills stations. To clarify, the student shall be allowed one (1) retest opportunity per skill station, not to exceed two (2) practical skills stations in the final examination. Accordingly, failure of three (3) of these stations results in failure of the course. The use of interpreters or others who might assist in communicating is not allowed. Applicants for licensure will be required to successfully complete each section of the practical skills examination prior to taking the state written licensure exam.

AT THE END OF THE COURSE

Within two weeks of the conclusion of the EMT-Basic Training Program, the instructor-coordinator shall submit to RIDOH a list of the status of students completing the course. This roster must include the RIDOH course approval

number and must be signed by the instructor-coordinator of record.

Each student successfully completing the course must be issued a certificate of course completion as described in *Part I: General Information – Course Completion Certificates*.

STATE WRITTEN LICENSURE EXAMINATION

Upon successful completion of the EMT-Basic training program, as verified by the instructor-coordinator, the student is eligible to take the state written licensure examination, administered by the National Registry of Emergency Medical Technicians. This exam shall be in English and conducted electronically at a local NREMT testing center. No oral form of the exam is available or permitted. The candidate's pass/fail status shall be as determined by the NREMT's scoring formula. Upon conclusion of the course, the candidate should submit a completed Rhode Island *Application for an Emergency Medical Technician License* and register online (<http://www.nremt.org>) to test with the NREMT.

RHODE ISLAND EMT-BASIC COURSE CURRICULUM

MODULE 1: PREPARATORY

- | | |
|-------------------|---|
| Lesson 1-1 | EMT-B Course Overview / Introduction to Emergency Medical Care (3 hours) <ul style="list-style-type: none">▪ Orients the student to general course information, including course policies and procedures.▪ Familiarizes the student with the fundamental concepts of emergency medical care.▪ Reviews the required Rhode Island EMS policies and protocols. |
| Lesson 1-2 | Medical, Legal, and Ethical Issues (3 hours) <ul style="list-style-type: none">▪ Explores scope-of-practice, ethical responsibilities, advanced directives, consent, refusals, abandonment, negligence, duty-to-act, confidentiality, and crime scenes.▪ Introduces the Rhode Island <i>Comfort One</i> protocol. |
| Lesson 1-3 | Infection Control (3 hours) <ul style="list-style-type: none">▪ Based on compliance with OSHA's <i>29 CFR, Part 1910.1030</i>.▪ Provides the student with a basic knowledge of scene safety, potential hazardous materials, body substance isolation requirements, personal protective equipment needs, prevention of needlestick injuries, and the hazards of infection and communicable disease.▪ Introduces and/or demonstrates use of common PPE for protection against airborne, bloodborne, and other pathogens.▪ Introduces the Rhode Island <i>Standard Management of All Patients</i> protocol.▪ Introduces Rhode Island requirements for exposure reporting including use of the <i>RI Pre-Hospital Exposure Form</i>. |
| Lesson 1-4 | Anatomy & Physiology – Part I (3 hours) <ul style="list-style-type: none">▪ Enhances the student's knowledge of the human body.▪ Provides a brief overview of body systems, anatomy, physiology and topographic anatomy.▪ Identifies medical terminology specific to the body systems that are discussed. |
| Lesson 1-5 | Anatomy & Physiology – Part II (3 hours) <ul style="list-style-type: none">▪ Completes the overview of the human body systems, anatomy, physiology, |

and topographic anatomy.

- Identifies additional medical terminology specific to the body systems discussed.

MODULE 2: AIRWAY/CARDIOPULMONARY RESUSCITATION

Lesson 2-1

Airway Management (3 hours)

- Examines airway anatomy and physiology, how to maintain an open airway, pulmonary resuscitation, and the variations for infants and children.
- Discusses the use of airway adjuncts, suction equipment, oxygen equipment, and resuscitation devices.
- Demonstrates the use of the EOA. References the *2002 Supplemental Airway Modules for the 1994 Emergency Medical Technician-Basic: NSC*.
- Explains the operating principle of and demonstrates the use of the pulseoximeter.

Lesson 2-2

PRACTICAL SKILLS LAB – Airway Management (3 hours)

- Provides supervised practice to develop the psychomotor skills required for airway maintenance.
- Emphasizes the principles and use of airway adjuncts, suction equipment, oxygen equipment to include nebulizer, and resuscitation devices. Practices the use of the EOA.

THESE SKILLS ARE EXPECTED TO BE REINFORCED THROUGHOUT THE TRAINING PROGRAM.

Lesson 2-3

Cardiopulmonary Resuscitation and Automated External Defibrillator (3 hours)

- Delivered in accordance with the current standards of the American Heart Association (AHA) Healthcare Provider CPR course or RIDOH-approved equivalent (as selected by the instructor-coordinator).
- Provides knowledge and skill development lecture/ demonstration for the following: One-man CPR; two-man CPR; infant and child resuscitation; and obstructed airway for adult, child, and infant.
- Discusses the risk factors and warning signs of heart attack. Introduces the use of the automated external defibrillator.

Lesson 2-4

PRACTICAL SKILLS LAB – CPR/AED (3 hours)

- Provides supervised practice for one-man CPR (adult, child, and infant), two-man CPR (adult and child), obstructed airway (adult, child, and infant), and automated external defibrillation.

These skills need to be reinforced throughout the training with a written and psychomotor skills evaluation successfully completed prior to end of the training program.

MODULE 3: PATIENT ASSESSMENT

Lesson 3-1

Patient Assessment (3 hours)

- Emphasizes the knowledge and skills required to perform initial assessment of a patient, understand the priorities of patient care, decision to perform a detailed physical examination versus a focused physical examination, and the ongoing assessment of trauma and medical patients.
- Discussions pertaining to vital signs and taking a SAMPLE history are to be included in this session.

Lesson 3-2

PRACTICAL SKILLS LAB – Patient Assessment (3 hours)

- Reinforces all knowledge and skills learned thus far to assure that the student has the knowledge and assessment skills necessary to continue with the management of patients with medical complaints and traumatic injuries.

MODULE 4: TRAUMA

Lesson 4-1

Bleeding and Shock (3 hours)

- Reviews the cardiovascular system.
- Describes the care of patients with internal and external bleeding, the signs and symptoms of shock, including the recognition of the signs and symptoms and emergency care for allergic reaction, and emergency medical care for shock.
- Introduces the pneumatic anti-shock garment (PASG).
- Introduces lesson-appropriate RI EMS protocols and medications (including epinephrine, Ana-kit®, Epi-pen®, and subcutaneous injection).

Lesson 4-2

PRACTICAL SKILLS LAB – Trauma Part I (3 hours)

- Performs all skills covered thus far, with emphasis on the knowledge and skills needed to perform patient assessment, CPR, and airway management.
- Practices application of the pneumatic anti-shock garment (PASG).
- Practices administration of epinephrine (including epinephrine, Ana-kit®, Epi-pen®, and subcutaneous injection).

Lesson 4-3

Soft Tissue Injuries (3 hours)

- Reinforces the information learned in the *Bleeding and Shock* lesson by reviewing the anatomy and physiology of the skin and the management of soft tissue injuries and burns.
- Teaches techniques of dressing and bandaging.

Lesson 4-4

Injuries to the Chest, Abdomen, and Genitalia (3 hours)

- Reviews the anatomy and physiology of the chest, abdomen, digestive system, and genitourinary system.

- Covers principles and techniques of care to include dressing and bandaging the chest.

Lesson 4-5**Musculoskeletal Care: Part I (3 hours)**

- Reviews the musculoskeletal system to include definitions of types of fractures and dislocations, signs and symptoms of fractures, dislocations and sprains, and principles and techniques of immobilizing injuries of the upper extremities.

Lesson 4-6**Musculoskeletal Care: Part II (3 hours)**

- Discusses the signs and symptoms of fractures and dislocations of the pelvis and lower extremities as well as techniques of immobilizing injuries of the lower extremities.

Lesson 4-7**PRACTICAL SKILLS LAB – Trauma Part II (3 hours)**

- Emphasizes the principles of immobilization and the knowledge required to assess and manage patients with traumatic injuries to include bandaging, splinting, use of the traction splint, wire, padded board and pneumatic air and vacuum splints.

Lesson 4-8**Injuries to the Head and Spine (3 hours)**

- Reviews the anatomy of the nervous and skeletal systems.
- Explains injuries of the spine and head, including mechanism of injury, signs and symptoms of injury, and assessment.
- Discusses the use of cervical immobilization devices, KED, short and long boards, helmet removal, and infant and child considerations.

Lesson 4-9**PRACTICAL SKILLS LAB – Trauma Part III (3 hours)**

- Practices all skills to date, with emphasis on the knowledge and skills required to perform KED, long board, CPR, airway management, traction splinting, PASG, and patient assessment.

Lesson 4-10**Trauma Score Training/Patient Assessment/Situation Review (3 hours)**

- Discusses the revised trauma score and allows for student practice.
- Explains major incident and triage criteria to include the use of triage tag and patient tracking systems.
- Emphasizes knowledge and skills required to perform patient assessment, CPR, airway management, or any other skills identified by the instructor as needing re-emphasis.

MODULE 5: MID-TERM EVALUATIONS

Lesson 5-1

MID-TERM WRITTEN EXAMINATION (3 hours)

Comprehensive written examination to evaluate the cognitive aspects of emergency medical care. Includes all material discussed to date.

Lesson 5-2

PRACTICAL SKILLS ASSESSMENT (3 hours)

Student will demonstrate and instructor will evaluate the knowledge and skills required to perform all psychomotor skills covered to date.

MODULE 6: MEDICAL EMERGENCIES, OB/GYN, INFANTS & CHILDREN, ENVIRONMENTAL & BEHAVIORAL EMERGENCIES

Lesson 6-1

Medical Emergencies – Part I (3 hours)

- Reviews anatomy and physiology of the respiratory system, including assessment of respiratory difficulty and the emergency medical care of respiratory emergencies.
- Includes instruction in RI EMS protocols and medications.
- Reviews the cardiovascular system to include the assessment of cardiovascular diseases.
- Includes the emergency medical care of cardiovascular emergencies, RI EMS protocols, and medication administration, with an emphasis on aspirin and nitroglycerin.
- Reviews the nervous system and cerebral vascular accidents to include assessment of stroke and emergency medical care for stroke patients according to RI protocols.

Lesson 6-2

Medical Emergencies – Part II (3 hours)

- Reviews the assessment of altered levels of consciousness.
- Discusses emergency medical care of patients with altered mental status including diabetes
- Discusses RI EMS protocols and medication administration for altered mental status and diabetes, with an emphasis on administration of glucagon.
- Explains the operating principle of and demonstrates the use of the glucometer.
- Teaches recognition of the signs and symptoms of poisoning and overdose.
- Discusses emergency medical care for patients with poisoning and overdose, including RI EMS protocols and medication administration, with an emphasis on activated charcoal and ipecac.

Lesson 6-3**Obstetrics/Gynecology (3 hours)**

- Reviews the anatomical and physiological changes that occur during pregnancy.
- Discusses provision of obstetrical assistance.
- Differentiates between normal and abnormal deliveries and details the care of neonates.
- Reviews the signs and symptoms of common gynecological emergencies.

Lesson 6-4**Infants and Children (3 hours)**

- Presents information concerning the development and anatomical differences in infants and children and discusses common medical and traumatic emergency situations.

Lesson 6-5**Environmental Emergencies (3 hours)**

- Emphasizes the assessment and emergency medical care of heat and cold exposure.
- Provides information on aquatic emergencies and bites and stings.

Lesson 6-6**Psychological Aspects of Emergency Care (3 hours)**

- Covers the emotional aspects of emergency care and stress management.
- Introduces Critical Incident Stress Management (CISM).
- Considers management of patients with special healthcare needs and patients who are elderly, handicapped, and/or psychologically disturbed.
- Discusses management of patients displaying abnormal behavior and of substance abuse patients.
- Explores dealing with death and dying and the emotional aspects of managing SIDS patients.

MODULE 7: MAJOR INCIDENT**Lesson 7-1****Major Incident Protocol (3 hours)**

- Introduces the major WMD agents and describes situations/scenarios where these agents could be encountered.
- Provides an introduction to the RI *Major Incident* protocol.
- Discusses management of major incident scenes and the EMT's role in patient triage, evacuation, decontamination, care, and transportation.
- Discusses medical management of patients exposed to various types of WMD agents.
- Introduces BLS *Major Incident* medications, including administration of the Mark-I antidote kit by autoinjector.

Lesson 7-2**PRACTICAL SKILLS LAB – PPE and Autoinjectors (3 hours)**

- Provides an overview of PPE levels A-C.
- Describes the appropriate use and limitations of Level C PPE in accordance with RI protocols.
- Demonstrates appropriate donning and doffing of Level C PPE, including use of the Positive Air-Purifying Respirator (PAPR).
- Provides students with practice in the practical skills of donning and doffing Level C PPE, including the PAPR.
- Provides students with practice in the practical skill of administering the Mark-I antidote kit by autoinjector.

MODULE 8: OPERATIONS**Lesson 8-1****PRACTICAL SKILLS LAB – Lifting and Moving Patients (3 hours)**

- Emphasizes the knowledge of body mechanics, safe lifting and carrying techniques, principles of moving patients, and an overview of extrication/transport equipment.
- Covers practical skills of lifting and moving using typical equipment.

Lesson 8-2**Ambulance Operations (3 hours)**

- Provides an overview of the knowledge needed to function in the prehospital environment, including responding to calls, emergency vehicle operations, transferring patients, and phases of ambulance calls.
- Covers documentation and use of the R.I. *Ambulance Run Report* (both paper and electronic version) and provides instruction and practice in writing a patient care narrative.
- Explains the components of communication systems including radio communications, contact with medical direction, verbal communication, interpersonal communication.
- Describes the importance of and process for quality assurance and quality improvement (QA/QI).

Lesson 8-3**Principles of Extrication (3 hours)**

- Provides an overview of rescue operations to include roles and responsibilities at a crash scene, equipment, gaining access, and removing patients from entrapment.
- Reinforces information on hazardous materials, incident management systems, mass casualty incidents, and basic triage.

Lesson 8-4**PRACTICAL SKILLS LAB – Extrication (7 hours)**

- Emphasizes the knowledge and skills required to perform patient assessment, CPR, and airway management.
- Practices application of the pneumatic anti-shock garment, traction splint, and spinal immobilization (KED and long board).

- Demonstrates techniques for bandaging and splinting. Can be used as situational review or practical lab session.
- Students should be allowed the opportunity to perform these skills, including actual removal of patients from vehicles (see optional module below).

MODULE 9: FINAL EVALUATIONS

Lesson 9-1

COURSE REVIEW (3 hours)

- Reviews the course contents by either group discussion or situational review.

Lesson 9-2

FINAL COURSE WRITTEN EXAMINATION (3 hours)

A comprehensive examination to include all aspects of the EMT-Basic curriculum.

Lesson 9-3

FINAL PRACTICAL SKILLS EXAMINATION (3 hours)

A comprehensive examination to include all aspects of the practical skills required to function as an EMT-Basic.

OPTIONAL MODULE: PRACTICAL SKILLS LAB

The following is not an element of the core curriculum, but may be added on to some courses or may be used in place of Lesson 8-4.

EXTRICATION LAB

- Practices patient assessment, treatment and removal of patients from motor vehicles and other situations with limited access.
- Can include any combination of the following: Demonstration only of extrication; demonstration and practice of extrication; automobile scenario extrication drills; and pool scenario extrication drills.

HOSPITAL OBSERVATION TIME

All EMT-Basic students shall complete ten (10) hours of observation time in a **hospital emergency department** as approved by the instructor-coordinator. During this observation time the student shall complete and document five (5) *EMT-Basic Patient Observation Assessments*.

GUIDELINES FOR CONDUCTING AN EMT-CARDIAC TRAINING PROGRAM

APPROVED TEXTBOOKS

Intermediate Emergency Care. Bledsoe, B., Porter, R., Cherry, R. Brady/Prentice Hall, 2004.

Essentials of Paramedic Care (Second Edition). Bledsoe, B., Porter, R., Cherry, R. Brady/Prentice Hall, 2007.

Paramedic Textbook (Third Edition). Sanders, M., Mosby Jems, 2007.

Paramedic Care: Principles and Practice (Second Edition) Bledsoe, B., Porter, R., Cherry, R. Brady/Prentice Hall, 2006.

Appropriate workbooks to accompany approved texts. To be approved, any Intermediate-level textbooks must be based on the 1999 EMT-Intermediate National Standard Curriculum. All textbooks and materials must be compliant with 2005 American Heart Association guidelines.

STUDENT PREREQUISITES

Instructor-coordinators should require that all prospective EMT-Cardiac students have attained licensure at the EMT-Basic level before beginning the EMT-Cardiac training.

AT THE BEGINNING OF THE COURSE

The following materials will be distributed to students prior to or on the first day of class:

- A course overview, containing information such as course regulations, attendance policies, grading, performance expectations, and the RIDOH course approval number;
- Contact information (phone and email) for the instructor-coordinator of record;
- Approved textbook and workbook, if applicable (books purchased by the students);
- Current *Rhode Island Prehospital Care Protocols and Standing Orders*;
- *Advanced Cardiac Psychomotor Skills Examination Sheet*;
- *ALS Observation Practicum Skill Sheet*;
- *Intravenous Therapy Practicum Skill Sheet*;
- *Functional Job Description for an EMT*;
- *ADA Policy and Certification of Eligibility Form* (return to RIDOH as soon as possible);
- *Criminal Conviction Guidelines*;

**BEFORE THE
COURSE BEGINS**

Prior to the start of the EMT-Cardiac training program, the instructor-coordinator must conduct a faculty meeting to ensure that course conduct, instruction and examinations are as prescribed in the RIDOH-approved curriculum and meet the standards set forth by RIDOH. Documentation of this meeting must be maintained by the instructor-coordinator in the course file.

EXAMINATIONS**Course Final Written Examination**

The course final written examination must be comprehensive to include all aspects of the EMT-Cardiac curriculum. **Prior** to taking this exam, students must have successfully completed all didactic, laboratory, clinical, and administrative requirements of the EMT-Cardiac training program. This includes but is not limited to the following:

1. Sixteen (16) hours of ALS observation time as verified by the *ALS Practicum Assignment Sheet*. This form must be retained by the course instructor-coordinator with the course records.
2. Six (6) successful documented IV insertions, preferably on patients of all ages (including the geriatric and pediatric populations), as verified by the *Intravenous Therapy Practicum Skill Sheet*. This form must also be retained by the course instructor-coordinator with the course records.

Course Final Practical Examination

The EMT-Cardiac course/state final practical examination shall include two (2) medical mega-code skill stations and one (1) trauma mega-code skill station. Instructor-coordinators must ensure that their course-ending practical examinations are conducted specific to the standards established in the *EMT-Cardiac (Dynamic) Psychomotor Examination Sheet*. The student must demonstrate proper assessment of the patient and identify the critical life-threatening injuries and/or cardiac dysrhythmias. The student must verbally apply the correct therapies for the medical/trauma situation and safely and efficiently institute care. The examination sheets are to be maintained by the instructor-coordinator with the course records.

To ensure standardization in the conduct of course-ending practical examinations, students shall have the opportunity to retest on up to a maximum of one (1) practical skills station. To clarify, the student shall be allowed one (1) retest opportunity per skill station, not to exceed two (2) practical skills stations in the final examination. Accordingly, failure of three (3) of these stations results in failure of the course. The use of interpreters or others who might assist in communicating is not allowed. Applicants for licensure will be required to successfully complete each section of the practical skills examination prior to taking the state written licensure exam.

**AT THE END OF
THE COURSE**

Upon completion of the EMT-Cardiac training program, the instructor-coordinator shall submit to RIDOH a list of the status of each student completing the course. This roster must include the RIDOH course approval number, and it must be signed by the instructor-coordinator.

Each student successfully completing the course must be issued a certificate of course completion as described in *Part I: General Information – Course Completion Certificates*.

STATE WRITTEN LICENSURE EXAMINATION

Upon the successful completion of the EMT-Cardiac training program as verified by the instructor-coordinator, students are eligible to take the state written licensure examination. The exam shall be in English and consists of 100 multiple-choice questions. The candidate is required to mark answers with a pencil on an answer sheet based on reading questions from an examination booklet. No oral form of the exam will be made available or permitted. Applicants will be allowed two (2) hours to complete the examination. The minimum passing grade on this exam is 70%. Upon conclusion of the course, the candidate should submit a completed *Rhode Island Application for an Emergency Medical Technician License and Registration Form for EMT Written Examination* for the next available EMT-Cardiac written exam date (a schedule of EMT-Cardiac exam dates may be obtained from the RIDOH web site at <http://www.health.ri.gov>).

RHODE ISLAND EMT-CARDIAC COURSE CURRICULUM

OVERVIEW & INTRODUCTION **(45 Minutes)** Orients the students to general course information, including course objectives, requirements, policies, and procedures.

MODULE 1: ALS FUNDAMENTALS & ASSESSMENT

Lesson 1-1 **ALS Concepts, Terminology, Safety (3 hours)**

- Details the roles and responsibilities of the EMT-Cardiac, including a review of the medical-legal considerations in emergency care.
- Introduces math concepts for the EMT-Cardiac, incorporating use of an evaluative tool (e.g., pretest).
- Introduces ALS patient assessment, history taking, and the expanded primary survey.
- Covers medical terminology and reviews safety issues, including infectious disease control, sharps disposal and exposure reporting.

Lesson 1-2 **PRACTICAL SKILLS LAB (4 hours)**

- Reviews math applications and provides practice with medication dosage calculations and safe handling of IV equipment.
- Covers physical assessment skills, communication, documentation, and CPR manikin testing.

Lesson 1-3 **Obtaining Patient History, Review of Respiratory Systems (4 hours)**

QUIZ #1: ALS Concepts, Terminology, and Safety

- Reviews anatomy, physiology, pathophysiology, acid/base balance, history taking, and physical assessment relative to common respiratory emergencies
- Covers pharmacology, physical assessment, differentiation among shortness of breath presentations, patient management, interventions, and the applicable *RI Prehospital Care Protocols and Standing Orders*.

Lesson 1-4 **PRACTICAL SKILLS LAB (4 hours)**

- Review of QUIZ #1
- Practices history taking and physical assessment of the patient presenting with shortness of breath.
- Demonstrates the administration of respiratory drugs per RI protocols and

reviews the use of airway adjuncts, interventions, and special needs patients.

Lesson 1-5**Cardiovascular Physiology, Assessment, and Management (4 hours)****QUIZ #2: Obtaining Patient History, Respiratory Systems**

- Reviews anatomy, physiology, pathophysiology, history taking, and physical assessment relative to common cardiac emergencies.
- Covers pharmacology, physical assessment, differentiation among chest pain presentations, patient management, interventions, and the applicable *Rhode Island Prehospital Care Protocols and Standing Orders*.

Lesson 1-6**PRACTICAL SKILLS LAB (4 hours)**

- Review of QUIZ # 2
- Practices history taking and physical assessment of the patient presenting with chest pain as illustrated by case studies (differential assessment).
- Determines fluid status (JVD, peripheral edema, etc.)
- Practices vital signs, distinguishes heart and lung sounds, and assesses perfusion status (capillary refill, etc.)
- Demonstrates how to attach the patient to the cardiac monitor.
- Demonstrates administration of cardiac drugs per RI protocols.

MODULE 2: SHOCK & IV THERAPY**Lesson 2-1****Introduction to Shock and IV Therapy (4 hours)****QUIZ #3: Cardiovascular Physiology, Assessment, and Management**

- Reviews the clinical signs and management of shock.
- Reviews PASG and introduces IV therapy as an intervention for patients in shock.
- Lists the equipment (e.g. preloaded ampules, vials) needed to implement IV therapy.
- Covers medication administration, venipuncture, blood samples, glucose measurement, and intramuscular and subcutaneous injections.
- Provides information to calculate dosages and infusion rates.
- Integrates the above knowledge with the management of shock patients per RI protocols.

Lesson 2-2**PRACTICAL SKILLS LAB (4 hours)**

- Review of QUIZ #3
- Demonstrates access of peripheral veins, IV insertion, venipuncture, blood samples, glucose management, and intramuscular and subcutaneous injections.

- Provides practice for IV setup, drip rate calculations, medication administration, and admixtures.

Lesson 2-3**IV Infusion Pump Operation (1.5 hours)**

- Discusses basic principles for use of IV infusion pumps.
- Defines and discusses terminology related to IV pump operations.
- Reviews mathematical concepts for rate calculation.
- Describes set-up and operation of IV infusion pump.

PRACTICAL SKILLS LAB (1.5 hours)

- Demonstrates and provides practice for set-up and operation of IV infusion pump.

IV INFUSION PUMP EXAM (1 hour): Written and practical examination covering IV infusion pump operation

MODULE 3: ELECTROCARDIOLOGY**Lesson 3-1****Introduction to Electrocardiology (4 hours)**

EXAM #1: One-hour examination covering material presented in Modules 1 and 2

- Reviews anatomy and physiology of the heart (anatomical structures, conduction system, and properties).
- Introduces electrophysiology.
- Discusses depolarization and repolarization, components of the ECG, heart rate determination, and normal sinus rhythm.
- Introduces arrhythmias originating in the SA node (sinus bradycardia, sinus tachycardia, sinus arrhythmia, sinus arrest, and symptomatic bradycardia).
- Correlates management of these arrhythmias per RI protocols and current AHA (American Heart Association) standards, including medication administration.

Lesson 3-2**PRACTICAL SKILLS LAB (4 hours)**

- Review of EXAM #1.
- Participates in dynamic monitoring and uses the cardiac monitor.
- Analyzes arrhythmias originating in the SA node (sinus bradycardia, sinus tachycardia, sinus arrhythmia, sinus arrest, and symptomatic bradycardia).
- Practices IV setup, insertion, and the administration of medications relative to these arrhythmias per RI protocols and current AHA standards.

Lesson 3-3**Atrial Rhythms (4 hours)****QUIZ#5: Electrophysiology and Sinus Rhythms**

- Discusses arrhythmias originating in the atria (premature atrial contractions, paroxysmal atrial tachycardia, atrial fibrillation, atrial flutter, and wandering atrial pacemaker).

Lesson 3-4**PRACTICAL SKILLS LAB (4 hours)**

- Review of QUIZ #5
- Continues dynamic monitoring and using the cardiac monitor.
- Analyzes rhythms originating in the atria (premature atrial contractions, paroxysmal atrial tachycardia, atrial fibrillation, atrial flutter, and wandering pacemaker).

Lesson 3-5**Arrhythmias Originating at the AV Junction (4 hours)****QUIZ #6: Atrial Rhythms**

- Introduces arrhythmias originating at the AV junction (premature junctional contractions, junctional rhythm, accelerated junctional rhythm, and paroxysmal supraventricular tachycardia).
- Provides instruction relative to pulseless electrical activity.
- Discusses the signs and symptoms, treatment protocols, and medications relating to these arrhythmias
- Covers administration of medications via ETT.

Lesson 3-6**PRACTICAL SKILLS LAB (4 hours)**

- Review of QUIZ #6.
- Continues dynamic monitoring and using the cardiac monitor.
- Analyzes rhythms originating at the AV junction (premature junctional contractions, junctional rhythm, accelerated junctional rhythm, and paroxysmal supraventricular tachycardia).
- Demonstrates treatment for patients presenting with these rhythms per RI protocols and current AHA standards.

Lesson 3-7**AV Junctional Blocks and Paced Rhythms (4 hours)****QUIZ #7: Arrhythmias Originating at the AV Junction**

- Discusses first, second (types I and II), and third degree heart blocks.
- Explains types of pacemakers to include external/prehospital, internal (temporary and permanent), and permanent (ventricular and AV sequential).
- Introduces transcutaneous pacing with the cardiac monitor.
- Covers pacing rhythms (effective demand pacing, AV sequential pacing, and pacer malfunction).
- Provides instruction relative to telecommunication and diagnostics at home.

- Integrates RI protocols and current AHA standards into treatment of patients presenting with these rhythms.

Lesson 3-8**PRACTICAL SKILLS LAB (4 hours)**

- Review of QUIZ #7.
- Analyzes rhythm strips for first, second (types I and II), and third-degree heart blocks to include pacemaker rhythm, equipment, etc.
- Continues dynamic monitoring and using the cardiac monitor.
- Reviews arrhythmias and treatment modalities discussed in previous lessons.

Lesson 3-9**Ventricular Rhythms and Interventions – Part I (4 hours)****QUIZ #8: AV Junctional Blocks and Paced Rhythms**

- Introduces arrhythmias originating in the ventricles, including: premature ventricular contractions, ventricular tachycardia, idioventricular rhythms, and accelerated idioventricular rhythms.
- Integrates RI protocols and current AHA standards for PVCs and VT into the discussion, including the administration of appropriate cardiac medications.
- Explains defibrillation, synchronized cardioversion, and transcutaneous pacing.
- Discusses types of defibrillators (AED and manual) to include paddle/pad placement, operation, safety considerations and differences between monophasic and biphasic defibrillators.

Lesson 3-10**Ventricular Rhythms and Interventions – Part II (4 hours)****QUIZ #9: Ventricular Rhythms and Interventions-Part I**

- Review of QUIZ #8.
- Continues discussion of arrhythmias originating in the ventricles (ventricular fibrillation and asystole).
- Examines the appropriate RI protocols to manage these arrhythmias.
- Provides information on the administration of the appropriate cardiac medications.
- Provides instruction relative to advances in electrical therapy to include the automatic implantable cardio-defibrillator and safety considerations.
- Reviews arrhythmias and treatment modalities discussed in previous lessons.

Lesson 3-11**PRACTICAL SKILLS LAB (4 hours)**

- Review of QUIZ #9.
- Instructor demonstrates performance of a mega-code.
- Class divides into groups of 5 students, half of the groups working at V-Fib megacode stations and the others working at asystole megacode stations.

MODULE 4: ACLS

Lesson 4-1

Advanced Cardiac Life Support (ACLS) – Part I (8 hours)

- Delivered as required by the current American Heart Association's *ACLS Provider Course*.
- Provides knowledge and skill development to enhance the student's skills in the treatment of adult victims of cardiac arrest or other cardiopulmonary emergencies.

Lesson 4-2

Advanced Cardiac Life Support (ACLS) – Part II (8 hours)

- Continuation of Lesson 4-1

MODULE 5: MEDICAL EMERGENCIES

Lesson 5-1

Pediatric Emergencies (4 hours)

EXAM #2: One-hour examination covering material presented in Modules 3 & 4

- Reviews the differences between pediatric and adult patients, including approach and management, physical development, psychological development, equipment needs, and medical-legal considerations.
- Explains the pathophysiology, assessment, and prehospital management of the following: asthma, bronchiolitis, epiglottitis, croup, and foreign body aspiration.
- Discusses: fever/pediatric seizures, meningitis, sepsis, dehydration, Reye's syndrome, SIDS, child abuse and neglect, poisoning and overdose, and pediatric trauma.
- Covers the recognition and management of respiratory failure and shock in pediatric patients.

Lesson 5-2

PRACTICAL SKILLS LAB (4 hours)

- Review of EXAM #2.
- Practices pediatric physical assessment and history taking.
- Demonstrates pediatric airway management and oxygen therapy, pediatric IV fluid therapy, and pediatric ECG monitoring/defibrillation.
- Performs pediatric drug calculations and medication administration.

Lesson 5-3

Medical Emergencies – Part I (4 hours)

QUIZ #10: Pediatric Emergencies

- Introduces the recognition, assessment, and ALS management of the following medical emergencies: cerebral vascular accident, transient ischemic attack, drug overdose, ETOH intoxication, impaired consciousness, and gastrointestinal emergencies (obstruction, hemorrhage).

Lesson 5-4**Medical Emergencies – Part II (4 hours)**

- Review of QUIZ #10
- Introduces the recognition, assessment, and ALS management of the following medical emergencies: diabetic emergencies, genitourinary emergencies (UTI, PID, ectopic pregnancy), Addison's disease, obstetrical emergencies, thyroid storm, pre-eclampsia, anaphylaxis, and communicable diseases.

Lesson 5-5**PRACTICAL SKILLS LAB (4 hours)**

- Participates in medical emergency scenarios.
- Demonstrates drug bolus and IV piggyback medication preparation and administration, including use of the IV infusion pump for admixture administration.
- Continues dynamic monitoring review.
- Practices medical mega-codes.

MODULE 6: TRAUMATIC EMERGENCIES**Lesson 6-1****Trauma – Part I (4 hours)****EXAM #3:** One-hour examination covering material presented in Module 5

- Presents the initial assessment priorities of trauma patients including the rapid trauma assessment and the focused trauma assessment for specific injury.
- Reviews BLS and introduces ALS management of chest, head, and abdominal trauma.
- Covers load-and-go situations, trauma arrest, and trauma scoring.
- Introduces and demonstrates the trauma mega-code.

Lesson 6-2**PRACTICAL SKILLS LAB (4 hours)**

- Review of EXAM #3.
- Participates in stations requiring skills in auto extrication, removal of both stable and unstable patients from vehicles, rapid trauma assessments for patients with head and chest injuries, and partial and full helmet removal.

Lesson 6-3**Trauma – Part II (2 hours)****QUIZ #11:** Trauma Part I

- Discusses extrication considerations and interventions for trauma patients.
- Reviews BLS and introduces ALS management of spinal trauma and burn patients.

Major Incidents (2 hours)

- Covers setting priorities, managing multiple patients, transport decisions,

and communications.

- Discusses effects of and treatments for common WMD agents from an ALS perspective.
- Discusses pharmacology included in *Major Incident* protocol (specifically cyanide antidote kit and Versed®).

Lesson 6-4

PRACTICAL SKILLS LAB (4 hours)

- Review of QUIZ #11.
- Participates in various trauma and major incident scenarios.

MODULE 7: FINAL EVALUATION

Lesson 7-1

COURSE REVIEW (4 hours)

EXAM #4: One-hour examination covering material presented in Module 6

- Reviews all body systems, cardiac rhythms, ALS pharmacology, and RI protocols.
- Discusses medical technology in the prehospital field, complexity of care, burnout, crisis intervention, quality assurance/quality improvement, and documentation.
- Comprehensively integrates all aspects relative to the assessment and ALS management of patients (i.e., “putting it all together”).

Lesson 7-2

PRACTICAL SKILL LAB (4 hours)

- Review of EXAM #4.
- Participates in various medical and trauma mega-codes.

Lesson 7-3

SKILLS WORKSHOP I (4 hours)

- Demonstrates performance in a variety of medical and trauma mega-codes, dynamic monitoring, and medication administration.

Lesson 7-4

SKILLS WORKSHOP II (4 hours)

- Performs medical and trauma mega-codes.
- Interprets dynamic cardiac monitor strips and administers treatment in a variety of scenarios.

Lesson 7-5

EVALUATION SESSION (4 hours)

FINAL COURSE WRITTEN EXAMINATION: A comprehensive examination to include all aspects of the EMT-Cardiac curriculum.

Lesson 7-6**EVALUATION SESSION (4 hours)**

FINAL COURSE/STATE PRACTICAL EXAMINATION: Successful completion of two (2) medical mega-code and one (1) trauma mega-code skill stations.

IV THERAPY PRACTICUM

All EMT-Cardiac students must complete six (6) successful documented IV insertions, preferably on patients of all ages (including the geriatric and pediatric populations), as verified by the *Intravenous Therapy Practicum Skill Sheet*.

ALS OBSERVATION TIME

All EMT-Cardiac students must complete sixteen (16) hours of observation time with an ALS EMS service as verified by the *ALS Practicum Assignment Sheet*.

GUIDELINES FOR CONDUCTING AN EMT-PARAMEDIC TRAINING PROGRAM

APPROVED TEXTBOOKS

Essentials of Paramedic Care (Second Edition). Bledsoe, B., Porter, R., Cherry, R. Brady/Prentice Hall, 2007.

Paramedic Textbook (Third Edition). Sanders, M., Mosby Jems, 2007.

Paramedic Care: Principles and Practice (Second Edition) Bledsoe, B., Porter, R., Cherry, R. Brady/Prentice Hall, 2006.

Appropriate workbooks to accompany approved texts. All textbooks and materials must be compliant with 2005 American Heart Association guidelines.

STUDENT PREREQUISITES

Instructor-coordinators should require that all prospective EMT-Paramedic students have attained licensure at the EMT-Basic level before beginning the EMT- Paramedic training program.

AT THE BEGINNING OF THE COURSE

The following materials will be distributed to students prior to or on the first day of class:

- A course overview, containing information such as course regulations, attendance policies, grading, performance expectations, and the RIDOH course approval number;
- Contact information (phone and email) for the instructor-coordinator of record;
- Textbook and workbook, if applicable (books purchased by the students);
- Current *Rhode Island Prehospital Care Protocols and Standing Orders*.

BEFORE THE COURSE BEGINS

Prior to the start of an EMT-Paramedic training program, the instructor-coordinator must conduct a faculty meeting to ensure course conduct, instruction and examinations are as prescribed by the 1998 DOT *National Standard Curriculum* and meet the standards set forth by RIDOH and the NREMT. Documentation of this meeting must be maintained by the instructor-coordinator in the course file.

CURRICULUM & COURSE STANDARDS

RIDOH does not maintain an EMT-Paramedic curriculum specific to Rhode Island programs. All RIDOH-approved EMT-Paramedic training programs must be conducted in accordance with the *1998 Emergency Medical Technician-Paramedic: National Standard Curriculum (EMT-P)* and the training requirements of the National Registry of Emergency Medical Technicians (NREMT).

In addition to the above requirements, all RIDOH-approved EMT-Paramedic courses must include training in the use of the IV infusion pump, IV

anticoagulant therapy and IV nitroglycerin. Such training must be consistent with current RIDOH guidelines for these programs.

**AT THE END OF
THE COURSE**

Upon completion of the EMT-Paramedic training program, the instructor-coordinator shall submit to RIDOH a list of the status of each student completing the course within two weeks of the end of the training program. This roster must include the RIDOH course approval number, and it must be signed by the instructor-coordinator of record.

Each student successfully completing the course must be issued a certificate of course completion as described in *Part I: General Information – Course Completion Certificates*.

PART III

EXTENDED ROLE SKILLS

GUIDELINES FOR CONDUCTING AN ORAL/ENDOTRACHEAL INTUBATION COURSE

APPROVED TEXTBOOKS

Intermediate Emergency Care. Bledsoe, B., Porter, R., Cherry, R. Brady/Prentice Hall, 2004.

Essentials of Paramedic Care (Second Edition). Bledsoe, B., Porter, R., Cherry, R. Brady/Prentice Hall, 2007.

Paramedic Textbook (Third Edition). Sanders, M., Mosby Jems, 2007.

Paramedic Care: Principles and Practice (Second Edition) Bledsoe, B., Porter, R., Cherry, R. Brady/Prentice Hall, 2006.

Anyone Can Intubate (Fourth Edition). Whitten, K. Mooncat Publications, 1997.

To be approved, any Intermediate-level textbooks must be based on the 1999 EMT-Intermediate National Standard Curriculum. All textbooks and materials must be compliant with 2005 American Heart Association guidelines.

PREREQUISITES

All prospective students for this training program must be currently licensed as an EMT in Rhode Island. The application for this Extended Role Skill requires the listing of the current EMT license number. Even when conducted in conjunction with another course, this is a stand-alone training program requiring a separate application and RIDOH course approval number.

MEDICAL DIRECTION

The physician medical director for this course is directly responsible for each student's performance in the manikin-testing component of the curriculum, and as such, shall provide RIDOH with signed documentation, verifying that the student can safely and effectively perform the skill of orotracheal/endotracheal intubation.

The medical director may select a designee (e.g., the instructor-coordinator) to serve in his/her capacity. In this case, RIDOH requires written notification from the course medical director, naming the responsible individual (designee). Once the document is filed with RIDOH, it remains in full force and effect for subsequent orotracheal/endotracheal intubation training programs conducted by that instructor-coordinator. If the instructor-coordinator changes his/her course physician medical director, the new physician must supply RIDOH with documentation, naming the instructor as his designee.

AT THE BEGINNING OF THE COURSE

The following materials will be distributed to students prior to or on the first day of class:

- A course overview, containing information such as course regulations, attendance policies, grading, performance expectations, and the RIDOH

course approval number;

- Contact information (phone and email) for the instructor-coordinator of record;
- Approved textbook (purchased by student);
- A copy of the Rhode Island *Endotracheal Intubation* protocol.

EXAMINATIONS

Course Final Written Examination

Students must achieve a grade of 70% or higher to pass the written examination. The exam is comprised of 50 multiple-choice questions and based on the content of the didactic session.

Course Final Practical Examination

Every student must successfully complete a practical station, as prescribed by the *Orotracheal/Endotracheal Training Program Manikin Testing Sheet*. The course physician medical director or his/her designee must sign all sheets, indicating that the students have safely and effectively performed the skill of orotracheal/ endotracheal intubation under his/her supervision, and that he/she recommends the students for certification in the extended role skill of orotracheal/ endotracheal intubation.

AT THE END OF THE COURSE

At the conclusion of the EMT Extended Role – Orotracheal/ Endotracheal Intubation training program, the instructor-coordinator must forward the following documentation to RIDOH:

- A roster of all students who successfully completed the training program;
- A RIDOH *EMT-Extended Role Orotracheal/Endotracheal Intubation Request for Authorization to Practice* for each student on the roster (to be completed by the student);
- A completed and signed *Orotracheal/Endotracheal Training Program Manikin Testing Sheet* for each student who successfully completed the training program.

Upon receipt and verification of this paperwork, RIDOH will issue cards certifying each EMT in the extended role skill of orotracheal/endotracheal intubation.

Additionally, each student successfully completing the course must be issued a certificate of course completion as described in *Part I: General Information – Course Completion Certificates*.

RHODE ISLAND ORAL/ENDOTRACHEAL INTUBATION COURSE CURRICULUM

Students should be thoroughly familiar with the assigned textbook and any resource materials **prior** to beginning the course.

MODULE 1: Didactics

Didactic Content (3-4 hours)

- Introduction (5 min.)
- Anatomy and physiology of the adult and pediatric respiratory systems (60 min.)
- Patient assessment - adult/pediatric (15 min.)
- Pathophysiology and management of respiratory problems - adults/pediatric (60 min.)
- Techniques of managing adult and pediatric respiratory problems (80 min.)
- Clinical application according to RI protocols (10 min.)
- Communicable disease concerns (10 min.)

MODULE 2: Written Examination

Examination (1 hour)

EXAMINATION: The student shall be given a written examination consisting of 50 multiple-choice questions that are based on the content of the didactic content above. The student must pass the written exam (minimum passing score 70%) before proceeding to *Module 3: Manikin Training*.

MODULE 3: Manikin Training (8 hours)

Content

Practical review of airway adjuncts (i.e., bag-valve mask, EOA) and intubation equipment. Demonstration of laryngoscopy and intubation procedures, including suctioning, securing and assessing tube placement, and management of the ET tube.

- Pre-oxygenation and effective ventilation of the adult and pediatric manikins using the appropriate adjuncts and indicating the correct head positioning.
 1. Oral-pharyngeal airway and bag-valve-mask
 - Medical patient
 - Trauma patient with cervical spine immobilization
 2. Esophageal-obturator airway (adult medical patient only)

- Determination of the correct sized ET tube
- Set-up of equipment for ET intubation, including stylet
- Safe performance of direct laryngoscopy
 1. Protect dentition
 2. Visualize glottic opening
 3. Sellick's maneuver (positive cricoid pressure)
 4. Instrumentation of airway for relief of foreign body obstruction
- Intubation of trachea
- Laryngoscopy and intubation procedure not to exceed 30 seconds
- Auscultation of lung fields while ventilating with positive pressure through the ET to assess tube placement
- Securing the ET tube properly
- Reassessment of ET tube placement after securing the ET tube and every 5 minutes thereafter
- Demonstration of the proper technique for suctioning through the ET tube

Methodology

Training process consists of:

1. Demonstration
2. Practice of skills
3. Return demonstration

Skill stations will be performed for 2 hours at table height and 6 hours at floor level.

- Adult medical intubation (including instrumentation of airway for removal of foreign body obstruction)
- Adult medical intubation with EOA in place
- Adult trauma intubation with cervical spine immobilization (including use of stylet)
- Pediatric medical intubation (including instrumentation of airway for removal of foreign body obstruction)
- Pediatric trauma intubation with cervical spine immobilization (including use of stylet)

Evaluation

The instructor-coordinator will evaluate the student's performance, determining whether to recommend him/her for advancement to manikin testing or to have him/her repeat *Module 3: Manikin Training*.

GUIDELINES FOR CONDUCTING AN IV ANTICOAGULANTS COURSE

PREREQUISITE FOR STUDENTS

All prospective students for this training program must be licensed in Rhode Island at the EMT-Paramedic level (or currently enrolled in an approved EMT-Paramedic training program) and must have completed training in use of the IV infusion pump.

FACULTY REQUIREMENTS

In order to provide this training program, the instructor-coordinator must be licensed as an EMT-Paramedic and must have completed an approved IV anticoagulant therapy training program. Course faculty must be trained in the use of IV anticoagulants and be licensed as an EMT-Paramedic, RN, or MD.

TEXTBOOKS

The instructor-coordinator is permitted to use any material approved by the course physician medical director to adequately assist in the delivery of this training program. All textbooks and materials must be compliant with 2005 American Heart Association guidelines.

AT THE BEGINNING OF THE COURSE

The following materials will be distributed to students either during an orientation session prior to the start of the course or during the first scheduled class:

- A course overview, containing information such as course regulations, the mandatory attendance policy, grading, performance expectations, and the RIDOH course approval number;
- Contact information (phone and email) for the instructor-coordinator of record;
- The necessary course handouts, including a list of pertinent definitions of terms relative to the use of the intravenous anticoagulants.

EXAMINATIONS

Course Written Examination

Students must achieve a grade of 70% or higher to pass the written examination. The exam is based on the content of the didactic session.

Course Practical Examination

Every student must successfully complete a practical station demonstrating the management of patients receiving IV anticoagulant therapy.

**AT THE END OF
THE COURSE**

At the conclusion of the EMT Extended Role – Intravenous Anticoagulant Therapy training program, the instructor-coordinator must forward to RIDOH a roster of all students who successfully completed the program. Additionally, each student is required to complete a *Request for Authorization to Practice* form. These forms are to be forwarded with the class roster. Upon receipt and verification of this paperwork, *Authorization to Practice* wallet cards will be mailed by RIDOH to each student on the roster.

Additionally, each student successfully completing the course must be issued a certificate of course completion as described in *Part I: General Information – Course Completion Certificates*.

RHODE ISLAND IV ANTICOAGULANTS COURSE CURRICULUM

This curriculum serves as a sample curriculum for a specific anticoagulant: Heparin®. Instructor-coordinators should identify which anticoagulants are specific to their training programs.

Lesson 1

The Transfer of the Critical Care Patient Receiving IV Heparin® (15 min.)

Overview of course objectives, scope, and the role and responsibilities of the transfer team:

- Discuss general course objectives
- Define “transfer team”
- Discuss roles and responsibilities relating to the transfer of a patient receiving IV heparin
- Discuss/review

Lesson 2

Anticoagulant Therapy and Thromboembolic Events (1.25 hours)

- Define and discuss the following terminology as it relates to anticoagulation:

anticoagulant	plasmin
coagulation	plasminogen
CVA	protamine sulfate
DVT	prothrombin
embolus	PTT
fibrin	pulmonary embolus
fibrinogen	thrombin
fibrinolytic	thrombocytopenia
isotonic	thrombus
lysis	venous thrombosis
myocardial infarction	warfarin
parenteral	

- Basic principles of anticoagulant therapy:
 1. Describe how a thrombus is formed
 2. Describe how a thrombus is dissolved
 3. Discuss conditions placing persons at risk for developing a thrombus:
 - a. Atrial fibrillation
 - b. Atherosclerosis
 - c. Hypercoagulable conditions
 - d. Prolonged bed rest
 - e. Oral contraceptives
 - f. Angioplasty

- g. Recent surgery
- 4. Discuss the benefit of parenteral anticoagulation over PO anticoagulation.
- 5. Explain why heparin must be continued during transfer:
 - a. To achieve uniform levels over time
 - b. Prophylaxis for surgery
- 6. Discuss thromboembolic complications:
 - a. CVA
 - b. Arterial occlusion
 - c. Pulmonary embolus
 - d. Myocardial infarction

Lesson 3**IV Heparin Pharmacology (30 min.)**

- Discuss and identify indications for usage:
 - 1. Adjunctive treatment for AMI
 - 2. Prophylaxis in arterial and cardiac surgery
 - 3. Treatment of pulmonary embolus
 - 4. Treatment of venous thrombosis or DVT
 - 5. Adjunctive treatment for atrial fibrillation
- Discuss pharmacological actions of heparin:
 - 1. Prolongation of blood clotting time
 - 2. Inhibition of actions leading to thrombus formation
 - 3. Clot inhibition vs. thrombolysis (explain difference)
- Discuss and identify contraindications for usage:
 - 1. Hypersensitivity or known allergy
 - 2. Inability to perform serial blood coagulation studies
 - 3. Increased danger of bleeding
 - 4. Severe HTN and CVA (hemorrhagic)
 - 5. Overt bleeding
- Discuss dosage and administration:
 - 1. Reasons why prehospital providers will not be initiating heparin
 - 2. Typical preparation of solution and typical dose ranges
 - 3. Role of IV infusion pump in heparin administration

Lesson 4**Pharmacological Mathematics (30 min.)**

- Discuss for review mathematical skills and concepts necessary to manage the patient receiving IV heparin
- Mathematical practicum

Lesson 5**Management of the Patient Receiving IV Heparin (45 min.)**

- Discuss the complications and interfacility intervention for the development of signs/symptoms of CVA, severe HTN, and cardiopulmonary arrest
- Discuss protamine sulfate (antidote)
- Discuss the importance of maintaining infusion
- Discuss the roles and importance of alternatively delegated IV sites for administration of additional medications during transfer

Evaluation

WRITTEN AND PRACTICAL EXAMINATIONS (1 hour)
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GUIDELINES FOR CONDUCTING AN IV NITROGLYCERIN COURSE

PREREQUISITE FOR STUDENTS

All prospective students for this training program must be licensed in Rhode Island at the EMT-Paramedic level (or currently enrolled in an approved EMT-Paramedic training program) and must have completed training in use of the IV infusion pump.

FACULTY REQUIREMENTS

In order to provide this training program, the instructor-coordinator must be licensed as an EMT-Paramedic and must have completed an approved IV nitroglycerin training program. Course faculty must be trained in the use of IV nitroglycerin and be licensed as an EMT-Paramedic, RN, or MD.

TEXTBOOKS

The instructor-coordinator is permitted to use any material approved by the course physician medical director to adequately assist in the delivery of this training program. All textbooks and materials must be compliant with 2005 American Heart Association guidelines.

AT THE BEGINNING OF THE COURSE

The following materials will be distributed to students either during an orientation session prior to the start of the course or during the first scheduled class:

- A course overview, containing information such as course regulations, the mandatory attendance policy, grading, performance expectations, and the RIDOH course approval number;
- Contact information (phone and email) for the instructor-coordinator of record;
- The necessary course handouts, including a list of pertinent definitions of terms relative to the use of the intravenous nitroglycerin.

EXAMINATIONS

Course Written Examination

Students must achieve a grade of 70% or higher to pass the written examination. The exam is based on the content of the didactic session.

Course Practical Examination

Every student must successfully complete a practical station demonstrating the management of patients receiving IV nitroglycerin.

AT THE END OF THE COURSE

At the conclusion of the EMT Extended Role – Intravenous Nitroglycerin training program, the instructor-coordinator must forward to RIDOH a roster of all students who successfully completed the program. Additionally, each student is required to complete a *Request for Authorization to Practice* form.

These forms are to be forwarded with the class roster. Upon receipt and verification of this paperwork, *Authorization to Practice* wallet cards will be mailed by RIDOH to each student on the roster.

Additionally, each student successfully completing the course must be issued a certificate of course completion as described in *Part I: General Information – Course Completion Certificates*.

RHODE ISLAND IV NITROGLYCERIN COURSE CURRICULUM

Lesson 1

The Transfer of the Critical Care Patient Receiving IV Tridil® (15 minutes)

Overview of course objectives, scope, and the roles and responsibilities of the transfer team:

1. Discuss course objectives;
2. Define transfer team;
3. Discuss the roles and responsibilities of the transfer team as they relate to the transport of a patient receiving IV nitroglycerin.

Lesson 2

Identifying the Signs and Symptoms of Coronary Ischemic Syndromes and Cardiovascular Emergencies (1 hour and 15 min.)

- Define and discuss the following terminology as it to the use of nitrates:

afterload	serum level
baseline vital signs	swan ganz catheter
coronary artery bypass graft	therapeutic effect
ischemia	tridil
hemodynamics	titration
left ventricular dysfunction	unstable angina
PVC-free tubing	vasodilator
peristaltic	volumetric infusion pump
polyvinyl chloride	weaning
preload	

- Discuss the importance of identifying signs and symptoms of cardiovascular emergencies
 1. Arrhythmias and EKG changes
 2. Changes in or loss of consciousness
 3. Chest pain/discomfort or referred pain of cardiac origin
 4. Diaphoresis
 5. Dyspnea
 6. Palpitations
 7. Signs of heart failure
 8. Syncope and near syncope
 9. Unexplained hypotension
- Discuss and identify goals of intervention
 1. Relieve oxygen supply and demand mismatch
 2. Reduction or prevention of infarct
 3. Treatment of arrhythmias and heart failure
 4. Reduction of cardiac workload

Lesson 3**Use of Intravenous NTG for Treatment of Symptoms Associated With Acute Coronary Events (1 hour 15 min.)**

- Introduction and review of pharmacological treatment for acute coronary events:
 1. Discuss the importance of oxygen therapy
 2. Discuss the use of nitrates
 3. Discuss the use of intravenous narcotics and other treatment measures
- Discuss the benefits of intravenous NTG over topical and sublingual preparations (optimal therapeutic effect with constant serum level)
- Intravenous nitroglycerin pharmacology:
 1. Discuss and identify indications for usage of:
 - a. Unstable, pre & post infarction angina
 - b. Left ventricular failure/CHF (especially when associated with infarction)
 - c. Vasospastic angina
 - d. Signs of ischemia
 2. Discuss and identify:
 - a. Hypotension and shock
 - b. Hypersensitivity or known allergy
 - c. Head trauma/cerebral hemorrhage
 - d. Constrictive pericarditis and pericardial tamponade
 3. Discuss pharmacological actions of NTG
 - a. Relaxation of smooth vascular muscle
 - b. Coronary artery dilation
 - c. Increased collateral coronary blood flow
 - d. Reduced preload, afterload, and oxygen requirements
 4. Discuss and identify the side effects of NTG therapy
 - a. Headache
 - b. Nausea and vomiting
 - c. Hypotension (may exacerbate ischemia)
 - d. Reflex tachycardia
 - e. Bradycardia
 5. Discuss dosage and administration of intravenous NTG
 - a. Typical preparation of admixture and dose ranges
 - b. Role of infusion pump in administration
 - c. Titration methodology

Lesson 4**Pharmacological Mathematics (30 minutes)**

- Discuss mathematical skills necessary to safely maintain and titrate NTG
- Mathematical practicum

Lesson 5**Management of the Critical Patient Receiving IV Nitroglycerin (45 minutes)**

- Discuss overall management of the critical care patient
- Discuss complications and interfacility interventions for:
 1. Development of increasing chest pain or related symptoms of cardiac origin
 2. Development of hypotension
 3. Development of other complications
- Discuss the role and importance of alternatively delegated IV site for administration of additional medications during transfer

Evaluation

WRITTEN AND PRACTICAL EXAMINATIONS (1 hour)
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PART IV

UPDATE PROGRAMS

GUIDELINES FOR CONDUCTING AN EOA/MAST UPDATE PROGRAM

TEXTBOOKS

The instructor-coordinator is permitted to use any material approved by the course physician medical director to adequately assist in the delivery of this training program. All textbooks and materials must be compliant with 2005 American Heart Association guidelines.

AT THE BEGINNING OF THE COURSE

The following materials will be distributed to students either during an orientation session prior to the start of the course or during the first scheduled class.

- A course overview, containing information such as course regulations, the mandatory attendance policy, grading and performance expectations;
- Contact information (phone and email) for the instructor-coordinator of record;
- Applicable *Rhode Island Prehospital Care Protocols and Standing Orders*;
- The necessary course handouts.

PRACTICAL EXAMINATIONS

Every candidate must successfully complete practical stations demonstrating the use of both the EOA and MAST trousers. This exam must utilize the *Airway Management* and *MAST Trousers* practical skill sheets.

AT THE END OF THE COURSE

At the conclusion of the EOA/MAST Update program, the instructor must forward to RIDOH completed *Airway Management* and *MAST Trousers* practical skill sheets along with a completed *EOA/MAST Update Registration Form*. A copy of these documents should also be provided to the student for his/her records.

Additionally, the student must be provided with a certificate of course completion as described in *Part I: General Information – Course Completion Certificates*.

UPDATE CURRICULUM

Esophageal Obturator Airway

- Demonstrates the use of the EOA. References the *2002 Supplemental Airway Modules for the 1994 Emergency Medical Technician-Basic: NSC*.
- Provides practice in the use of the EOA as shown in the *Airway Management* practical skill sheet.

MAST Trousers

- Introduces and demonstrates application of the pneumatic anti-shock garment (PASG).
- Practices practice in the application of the PASG as shown in the *MAST Trousers* practical skill sheet.

GUIDELINES FOR CONDUCTING A MAJOR INCIDENT UPDATE PROGRAM

TEXTBOOKS

The instructor is permitted to use any material that will adequately assist in the delivery of this training program.

FACULTY REQUIREMENTS

In order to provide this training program, the instructor must have completed the *RIDOH/RIEMA Major Incident Train-the-Trainer* program.

AT THE BEGINNING OF THE COURSE

The following materials will be distributed to students either during an orientation session prior to the start of the course or during the first scheduled class.

- A course overview, containing information such as course regulations, the mandatory attendance policy, grading and performance expectations;
- Contact information (phone and email) for the instructor-coordinator of record;
- The necessary course handouts.

AT THE END OF THE COURSE

At the conclusion of the Major Incident Update program, the instructor must forward to RIDOH a roster of all students who successfully completed the training.

Additionally, students must be provided with a certificate of course completion as described in *Part I: General Information – Course Completion Certificates*.

UPDATE CURRICULUM

Major Incident Protocol (3 hours)

- Introduces the major WMD agents and describes situations/scenarios where these agents could be encountered.
- Provides an introduction to the RI *Major Incident* protocol.
- Discusses management of major incident scenes and the EMT's role in patient triage, evacuation, decontamination, care, and transportation.
- Discusses medical management of patients exposed to various types of WMD agents.
- Introduces BLS *Major Incident* medications, including administration of the Mark-I antidote kit by autoinjector.
- If appropriate to the candidate's level of licensure, introduces ALS Major Incident medications to include the cyanide antidote kit and Versed®.

PRACTICAL SKILLS LAB – PPE and Autoinjectors (3 hours)

- Provides an overview of personal protective equipment (PPE) levels A-C.
- Describes the appropriate use and limitations of Level C PPE.
- Demonstrates appropriate donning and doffing of Level C PPE, including use of the Positive Air-Purifying Respirator (PAPR).
- Provides students with practice in the practical skills of donning and doffing Level C PPE, including the PAPR.
- Provides students with practice in the practical skill of administering the Mark-I antidote kit by autoinjector.

**AWR160 CERTIFICATION
(OPTIONAL)**

If this course is taught by a DHS-approved AWR160: WMD Awareness instructor, the instructor may include pre- and post-tests to qualify the students for AWR160 certification upon completion of their course. However, this step is optional and is not required by RIDOH as part of the RI Major Incident Update.

GUIDELINES FOR CONDUCTING A TRANSCUTANEOUS PACING UPDATE PROGRAM

APPROVED TEXTBOOKS

The instructor is permitted to use any material that will adequately assist in the delivery of this training program. All textbooks and materials must be compliant with 2005 American Heart Association guidelines.

PREREQUISITE FOR STUDENTS

All prospective students for this training program must be licensed in Rhode Island as an EMT-Cardiac.

FACULTY REQUIREMENTS

In order to provide this training program, the instructor-coordinator must be licensed as an EMT-Cardiac or EMT-Paramedic and have completed RIDOH-approved training in transcutaneous pacing. Course faculty must also be trained in transcutaneous pacing and be licensed as an EMT-Cardiac, EMT-Paramedic, RN, or MD.

COURSE ATTENDANCE

Students are required to attend all classes.

AT THE BEGINNING OF THE COURSE

The following materials will be distributed to students either during an orientation session prior to the start of the course or during the first scheduled class:

- A course overview containing information such as course regulations, the mandatory attendance policy, grading, and performance expectations;
- Contact information (phone and email) for the instructor-coordinator of record;
- The necessary course handouts.

EXAMINATIONS

Course Practical Examination

Every student must successfully complete a practical station demonstrating the performance of transcutaneous pacing.

AT THE END OF THE COURSE

At the conclusion of the Transcutaneous Pacing Update program, the instructor-coordinator must forward to RIDOH a roster of all students who successfully completed the training.

Additionally, students must be provided with a certificate of course completion as described in *Part I: General Information – Course Completion Certificates*.

UPDATE CURRICULUM**Lesson 1: Didactic Session (1-2 hours)**

- Reviews the cardiac conduction system.
- Discusses the history and types of pacing (including permanent/temporary, invasive, and non-invasive).
- Discusses indications for pacing intervention (symptomatic bradycardia or second/third degree heartblock unresponsive to medication).
- Discusses contraindications for pacing (none, in the patient who is truly symptomatic).
- Describes potential complications of pacing.
- Reviews use of transcutaneous pacing in appropriate *Rhode Island Prehospital Care Protocols and Standing Orders*.
- Introduces procedure for transcutaneous pacing and demonstrates operation of typical device(s) used.

Lesson 2: Practical Skills Lab (1-2 hours)

- Reviews transcutaneous pacing procedures and applicable RI protocols.
- Provides a wide variety of scenario-based situations that review the use of transcutaneous pacing in RI protocols.

Lesson 3: Evaluations

WRITTEN & PRACTICAL EXAMINATIONS (1 hour)
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GUIDELINES FOR CONDUCTING AN IV INFUSION PUMP UPDATE PROGRAM

PREREQUISITE FOR STUDENTS

All prospective students for this training program must be licensed in Rhode Island at either the EMT-Cardiac level or the EMT-Paramedic level.

FACULTY REQUIREMENTS

In order to provide this training program, the instructor-coordinator must be licensed to at least the EMT-Cardiac level and have completed an approved IV Infusion Pump Update program or have completed IV infusion pump training as part of their EMT training program. All faculty must be trained in the use of IV infusion pumps and be licensed as an EMT-Cardiac, EMT-Paramedic, RN, or MD.

TEXTBOOKS

The instructor-coordinator is permitted to use any material approved by the course physician medical director to adequately assist in the delivery of this training program.

AT THE BEGINNING OF THE COURSE

The following materials will be distributed to students either during an orientation session prior to the start of the course or during the first scheduled class:

- A course overview, containing information such as course regulations, the mandatory attendance policy, grading, and performance expectations;
- Contact information (phone and email) for the instructor-coordinator of record;
- The necessary course handouts, including a list of pertinent definitions of terms relative to the use of the IV infusion pump.

EXAMINATIONS

Course Written Examination

Students must achieve a grade of 70% or higher to pass the written examination. The exam is based on the content of the didactic session.

Course Practical Examination

Every student must successfully complete a practical station demonstrating the use of an IV infusion pump.

**AT THE END OF
THE COURSE**

At the conclusion of the IV Infusion Pump Update program, the instructor-coordinator must forward to RIDOH a roster of all students who successfully completed the training.

Additionally, students must be provided with a certificate of course completion as described in *Part I: General Information – Course Completion Certificates*.

UPDATE CURRICULUM**Lesson 1: Basic Principles for Use of IV Infusion Pumps (15 min.)**

- Discuss reasons for using an IV pump:
 1. To prevent fluid overload
 2. To precisely regulate dosage and titration

Lesson 2: Intravenous Therapy Review (1.25 hours)

- Define and discuss the following terminology as it relates to pump operations:

crystalloid	collagen
occlusion	PVC tubing
PVC-free tubing	cassette
titration	circulatory overload
- Define and discuss the following terminology as it relates to peripheral IV insertion:

fluid selection	infusion set selection
IV cannula selection	vein selection
site preparation	
- Define and discuss the following terminology as it relates to the possible complications of IV therapy:

infection	pyrogenic reaction
infiltration	phlebitis
circulatory overload	air embolism
catheter shear	
- Review mathematical concepts for rate calculation

Lesson 3: Infusion Pump Operations (1.25 hours)

- Pump selection
- Infusion set selection
- Infusion set priming
- Infusion pump operation: (Emphasize importance of expelling air from tubing and cassette)
 1. Insertion of cassette
 2. Pump actuation

3. Rate selection
4. Pump operation
5. Response to alarms
6. Actions for pump failure

PRACTICAL LAB ON PUMP OPERATIONS

- Troubleshooting
 1. Equipment problems
 2. IV site access problems

WRITTEN AND PRACTICAL EXAMINATIONS (1 hour)
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PART V

REFRESHER PROGRAMS

GUIDELINES FOR CONDUCTING AN EMT-BASIC REFRESHER PROGRAM

APPROVED TEXTBOOKS

Refresher: Emergency Care and Transportation of the Sick and Injured (Second Edition). Pollack, A. American Academy of Orthopaedic Surgeons (AAOS), 2007.

Essentials of Emergency Care Refresher for EMT-B (Third Edition). Limmer, D., Elling, B., O'Keefe, M. Brady/Prentice Hall, 2002.

In addition to the above texts, the EMT-Basic Refresher may utilize any text approved by RIDOH for EMT- Basic courses, as listed in Part II: Course Guidelines. All textbooks and materials must be compliant with 2005 American Heart Association guidelines.

BEFORE THE COURSE BEGINS

Prior to the start of an EMT-Basic Refresher program, the instructor-coordinator must conduct a faculty meeting to ensure course conduct, instruction and examinations are as prescribed by the *1994 DOT National Standard Curriculum* and meet the standards set forth by RIDOH and the NREMT. Documentation of this meeting must be maintained by the instructor-coordinator in the course file.

AT THE BEGINNING OF THE COURSE

The following materials will be distributed to students prior to or on the first day of class:

- A course overview, containing information such as course regulations, attendance policies, grading, performance expectations, and the RIDOH course approval number;
- Contact information (phone and email) for the instructor-coordinator of record;
- Approved EMT-Basic textbook and workbook, if applicable (books purchased by the students).

ATTENDANCE

Attendance is mandatory for all classes. A student can miss no more than 10% of the total scheduled class hours (e.g. 3 hours in a 30-hour training program) without making up the time. He/she will, however, be held responsible for the material that was presented in his/her absence. Absences beyond 10% of the total class-hour schedule can be made up at the discretion of the instructor-coordinator. If absence from class is excessive, the student may attend the remaining classes, however, he/she will not be eligible to satisfy the requirements for his/her EMT license renewal.

COURSE DURATION

An EMT-Basic Refresher program must be between 26 and 40 hours in length. However, the instructor-coordinator may provide additional training as he/she deems necessary. Course content, both lecture and laboratory sessions, shall not exceed six (6) hours of course instruction per day. This does not include time allotted for lunch, breaks, etc. Any student who is authorized to practice the extended role skill(s) of Orotracheal/Endotracheal Intubation may complete the RIDOH renewal requirements for this skill as an “add-on” to the EMT-Basic Refresher program. The instructor-coordinator should incorporate a didactic/hands-on review of the skill and conduct the RIDOH-authorized practical skill examination.

EXAMINATIONS

Section 8.1.1 of the Rhode Island EMS regulations requires an EMT license renewal applicant to complete a RIDOH-approved refresher training program conducted under the supervision of a RI-licensed instructor-coordinator. There is currently no allowance for an individual to “challenge” the refresher course requirement by virtue of completing a state examination or an examination conducted by an instructor-coordinator. An examination in the form of a pretest administered to determine a needs analysis may be useful in fashioning a refresher course designed to address specific needs or deficiencies. While this process permits a creative and customized refresher course, it should not subtract from or imply any waiver of student compliance with the basic minimum training requirements as set forth in the *National Standard Curriculum* for the EMT-Basic Refresher program. Consequently, a pretest examination shall not serve as a substitute for a written/practical refresher training program final examination.

Course Final Written Examination

The course final written examination consists of 50 to 100 multiple-choice questions and should be comprehensive in scope to include all aspects of the EMT-Basic Refresher curriculum. Minimum passing grade is 70%.

Course Final Practical Examination

Instructor-coordinators need to ensure that their refresher course-ending practical examinations are conducted specific to the standards established in the *EMT-Basic Psychomotor Skills Objective Sheets*. The course final practical examination includes the following skill stations:

- Airway management
- Kendrick Extrication Device (KED)
- Long board
- Pneumatic anti-shock garment (MAST)
- Patient assessment
- Traction splinting

Extended Role Skill Examinations

The RIDOH-authorized extended role skill examination for Orotracheal/Endotracheal Intubation shall be conducted in accordance with the *Orotracheal/Endotracheal Renewal Skill Sheet*.

RHODE ISLAND

EMT-BASIC REFRESHER CURRICULUM

OVERVIEW & INTRODUCTION	(45 Minutes) Orients the students to general course information, including course objectives, requirements, policies, and procedures.
MODULE 1	Preparatory (2-4 hours) <ul style="list-style-type: none">▪ Scene safety▪ Quality improvement▪ Health and safety▪ Medical/legal
MODULE 2	Airway (2-4 hours) <ul style="list-style-type: none">▪ Opening the airway▪ Techniques for suctioning▪ Techniques for artificial ventilation▪ Airway adjuncts▪ Oxygen▪ Related practical skills *
MODULE 3	Patient Assessment (2-4 hours) <ul style="list-style-type: none">▪ Scene size-up/assessment▪ Initial assessment▪ Focused history and physical Exam▪ Detailed physical exam▪ Ongoing assessment▪ Verbal communication▪ Interpersonal communication▪ Prehospital care report▪ Related practical skills *
MODULE 4	Medical/ Behavioral (8-10 hours) <ul style="list-style-type: none">▪ General pharmacology▪ Breathing difficulty▪ Cardiac emergencies▪ Altered mental status▪ Diabetic with altered mental status▪ Allergic reactions

- Poisoning/overdose
- Behavioral emergencies

MODULE 5**Trauma (8-10 hours)**

- Shock (hypoperfusion)
- Open chest wound
- Open abdominal injury
- Amputations
- Burns
- Injuries to bones and joints
- Head and spine injuries
- Rapid extrication
- Related practical skills *

MODULE 6**Obstetrics/Infants/Children (2-4 hours)**

- Normal delivery
- Abnormal deliveries
- Medical problems in infants and children
- Trauma in children

MODULE 7**Major Incidents (2-4 hours)**

- WMD agents and medical management of exposed patients
- Management of major incident scenes
- BLS *Major Incident* medications
- Related practical skills *

* a student/teacher ratio of 5:1 is mandatory for all practical skill stations

GUIDELINES FOR CONDUCTING AN EMT-CARDIAC REFRESHER PROGRAM

APPROVED TEXTBOOKS

The EMT-Cardiac Refresher may utilize any text approved by RIDOH for EMT-Cardiac courses, as listed in *Part II: Course Guidelines*. To be approved, any Intermediate-level textbooks must be based on the 1999 EMT-Intermediate National Standard Curriculum. All textbooks and materials must be compliant with 2005 American Heart Association guidelines.

GENERAL INFORMATION

The EMT-Cardiac Refresher program is usually conducted in combination with an EMT-Basic Refresher program, and, as such, the instructor-coordinator only needs to submit to RIDOH one completed training program application form. Any student who is authorized to practice the extended role skill of Orotracheal/Endotracheal Intubation may complete the RIDOH renewal requirements for this skill as an “add-on” to the EMT-Cardiac Refresher program. The instructor-coordinator should incorporate a didactic/hands-on review of the skill and conduct the RIDOH-authorized practical skill examination using the appropriate renewal skill sheet.

After presenting Modules 1 through 7 of the EMT-Basic Refresher curriculum, the instructor then holds additional classes to cover Modules 8 through 11, the “cardiac refresher add-on.” In this case, all students taking the EMT-Cardiac Refresher must have satisfactorily completed the EMT-Basic Refresher portion of the program, including the final written and practical examinations. If the instructor-coordinator chooses to conduct only a cardiac refresher, he/she must ensure that students who enroll in the class have already satisfactorily completed their EMT-Basic Refresher programs.

COURSE DURATION

An EMT-Cardiac Refresher program must be between 12 and 15 hours in length (in addition to the EMT-Basic Refresher program.) However, the instructor-coordinator may provide additional training as he/she deems necessary.

ATTENDANCE

Attendance is mandatory for all classes. A student can miss no more than 10% of the total scheduled class hours (3 hours in a 30-hour training program) without making up the time. He/she will, however, be held responsible for the material that was presented in his/her absence. Absences beyond 10% of the total class hour schedule can be made up at the discretion of the instructor-coordinator. If absence from class is excessive, the student may attend the remaining classes, however, he/she will not be eligible to satisfy the requirements for his/her EMT license renewal.

EXAMINATIONS**Course Final Written Examination**

The course final written examination consists of 50 to 100 multiple-choice questions and should be comprehensive in scope to include all aspects of the EMT-Cardiac Refresher curriculum. A passing grade is 70% or higher is required.

Course Final Practical Examination

The EMT-Cardiac Refresher final practical examination includes the following skill stations:

- Medical mega-code
- Trauma mega-code

Extended Role Skill Examinations (if applicable)

The RIDOH-authorized extended role skill examination for Orotracheal/Endotracheal Intubation shall be conducted in accordance with the *Orotracheal/Endotracheal Renewal Skill Sheet*.

RHODE ISLAND EMT-CARDIAC REFRESHER CURRICULUM

OVERVIEW & INTRODUCTION

(45 Minutes) Orients the students to general course information, including course objectives, requirements, policies, and procedures.

MODULE 8

General Pharmacology (3-4 hours)

- Discuss routes of administering medications.
- List the prehospital medications that can be administered via endotracheal tube.
- List factors that may affect medication rate of absorption.
- Review the metric system as it relates to medications.
- Describe the autonomic nervous system and how it is affected by medications.
- State the generic names, actions, indications, contraindications, average doses, and side effects of all prehospital medications approved for use by the EMT-C.
- Review IV techniques to include, but not limited to, anatomy/physiology, aseptic technique, cannulation of veins, use of IV infusion pumps, and complications of IV therapy. Includes manikin practice.
- Review body substance isolation (BSI) and basic infection control procedures (sharps disposal, protective garments, proper disposal and clean-up).

MODULE 9

Dysrhythmia Recognition (3-4 hours)

- Describe the normal conduction pathway of the heart.
- Describe the routine procedure for ECG monitoring.
- Identify ECG rhythm strips.
- Discuss the causes, recognition, and management of various cardiac dysrhythmias.
- Dynamic monitoring; rhythm identification/treatment.

MODULE 10

Advanced Life Support: Medical and Trauma (3-4 hours)

- Discuss the management of various cardiac dysrhythmias.
- Review all Rhode Island EMT-Cardiac protocols.
- Review and practice ALS medical/trauma codes per RI protocols and AHA standards.
- Review and demonstrate safe procedures for defibrillation, cardioversion, and transcutaneous pacing.

MODULE 11

Examinations (3 hours)

- 2-hour final written examination (50 – 100 questions)
- 1-hour final practical examination incorporating:
 - Medical mega code
 - Trauma mega code
 - Orotracheal/Endotracheal Intubation (if applicable)

GUIDELINES FOR CONDUCTING AN EMT-PARAMEDIC REFRESHER PROGRAM

APPROVED TEXTBOOKS

The EMT-Paramedic Refresher may utilize any text approved by RIDOH for EMT- Paramedic courses, as listed in *Part II: Course Guidelines*. All textbooks and materials must be compliant with 2005 American Heart Association guidelines.

CURRICULUM & COURSE STANDARDS

RIDOH does not maintain an EMT-Paramedic curriculum specific to Rhode Island programs. All RIDOH-approved EMT-Paramedic refresher programs must be conducted in accordance with the *2001 EMT-Paramedic: National Standard Curriculum Refresher Course* and the refresher requirements of the National Registry of Emergency Medical Technicians (NREMT).